

ABSTRACT

This invention provides (R)-2-octanol dehydrogenase that catalyzes oxidation-reduction reaction using NAD⁺ (NADH) as a coenzyme and the genes that encodes them. The enzymes of this invention can be obtained from microorganisms such as the genera
5 *Pichia*, *Candida*, and *Ogataea*, and so on. It is possible to produce alcohols, in particular, alcohols such as (S)-4-halo-3-hydroxybutyric acid esters and (R)-propoxybenzene derivatives by reducing ketones with this (R)-2-octanol dehydrogenase. Moreover, the (R)-2-octanol dehydrogenase of this invention is excellent in activity and stereoselectivity.